

some extent intermediates between the true *cansa* and the subspecies next following.

18. *Ochotona cansa morosa*, subsp. n.

♀. 4. 'Tai-pai-san, 45 miles S.E. of Feng-siang-fu, Shen-si. 10,500'. 4th August, 1911. B.M. no. 12. 8. 5. 68.
Type.

Size slightly greater than in typical *cansa*. Colour darker, the hairs of the back more heavily blackened terminally. Under surface with all the hairs broadly washed with dark buffy, instead of, as in true *cansa*, only those of the middle line being so coloured, the sides of the belly being whitish. Hands and feet darker and more uniformly buffy above and more blackish below, the whitish fringes on either side of the feet, so marked in *cansa*, less developed and dull buffy in colour, so that practically the whole of the sole appears sooty brown.

Skull with rather more strongly convex frontal outline, broader interorbital space, larger brain-case, and broader palatal bridge than in any of the specimens of true *cansa*. In the type the projecting point representing the posterior part of the septum of the palatal foramina is more developed than usual, but this may be an individual peculiarity.

Dimensions of the type:—

Head and body 149 mm.; tail 8; hind foot 27; ear 18.

Skull: greatest length 36; condylo-incisive length 34.3; zygomatic breadth 18; nasals 11.2 × 4.4; interorbital breadth 4.1; breadth of brain-case 14.2; palatal bridge 2.6; upper tooth-series (alveoli) 6.7.

Hab. & Type as above.

In its dull colour this Pika has some resemblance to the *O. tibetana* of Sze-chwan, but is smaller, with larger bullæ and a more bowed frontal outline. Much more material is needed before the true relationship to each other of these allied forms of *Ochotona* can be clearly understood.

LII.—*New Bats and Rodents from S. America.*

By OLDFIELD THOMAS.

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Chæronycteris inca, sp. n.

Nearly allied to *Ch. minor*, but the premolars shorter (horizontally) and the molars longer.

Fur of back about 6 mm. in length. General colour above of the usual dark brown, the bases of the hairs lighter, their tips blackish brown. Interfemoral membrane broad.

Skull rather larger and broader than in *Ch. minor*. Upper premolars shorter, less excessively compressed laterally. Two anterior molars longer, narrower proportionally, the posterior lobe particularly elongate, and with a well-marked postero-external cusp, each of the teeth showing three distinct cusps when viewed from the side. Last molar and lower teeth about as in *Ch. minor*.

Dimensions of the type :—

Forearm 33 mm.

Head and body 62; tail 8; lower leg and foot 21; calcar 6.5.

Skull: greatest breadth 8.5; interorbital breadth 4; front of canine to back of m^3 7.8; length of p^3 0.8, p^4 0.9, m^1 1.1, m^2 1.1, p_4 0.9, m_1 1.0.

Hab. Yahuarimayo, S.E. Peru. Alt. 1200'.

Type. Adult male. B.M. no. 12. 9. 5. 2. Original number 709. Collected 7th February, 1912, by H. and C. Watkins. One specimen.

Taking as representing Peters's Surinam *Ch. minor* the skull from the Cuparé River, Lower Tapajoz, so determined by Dobson (and there is a very strong Guianan character in the fauna of that part of the Amazon), the present bat from Peru differs in the proportional size of its teeth, but is otherwise closely similar to it. The Trinidad bat described by Allen and Chapman as *Ch. intermedia* is very probably the same as *Ch. minor*, as those authors were deceived by Peters's impossible measurement of 11 mm. for the calcar, an organ drawn as about 5 mm. long in the more recently published plate of the latter species (*Chiropt. Mus. Berol. pl. viii. a*).

SCLERONYCTERIS, g. n. (*Glossophaginae*).

Like *Chæronycteris*, but molars and premolars more normal in structure.

External characters, general shape of skull*, and dental formula all as in *Chæronycteris*. Zygomata not ossified. Chin unusually prominent, projecting both forwards and downwards. Interfemoral membrane broad.

Upper teeth.—Incisors comparatively large, the space between the inner pair not greater than the diameter of one of

* The only skull is imperfect in the pterygoid region, so that the relationship to *Hylonycteris* cannot be stated. That genus agrees with *Chæronycteris* in its dental characters.

these teeth. Outer pair slightly larger than inner. Premolars normal in shape and size, not of the peculiar narrow elongate shape of those of *Charonycteris*, but evenly oval in outline, each with one main cusp and without anterior or posterior secondary cusps; the anterior about two-thirds the size of the posterior. Molars broader than in the allied genus, their outer border straight, inner evenly convex; the hinder of the two main cusps, which are seen in lateral view, pushed inwards by an external broadening tending in the direction of the usual **W**-shaped structure of ordinary Glossophagine bats; but the anterior main cusp absolutely at the external edge of the tooth.

Lower teeth.—Incisors absent. Canines with well-marked posterior basal ledge. Premolars quite normal in shape, elongate oval in outline, increasing slightly in size from before backwards, nearly touching one another, therefore very different from the abnormal linear widely separated lower premolars of *Charonycteris*, the anterior of which is the longest of the three. Lower molars nearly oval in outline, with something of the normal triangle in front and a broad deeply concave talon behind.

Type:—

Scleronycteris ega, sp. n.

General external characters as in *Charonycteris minor*. Colour above Prout's brown, paler at bases of hairs, blackish at tip. Under surface rather lighter, except on the chin and interramia, where the colour is as dark as on the back. Palate-ridges three undivided and five divided. Tail present, its tip appearing on the upper surface of the membrane.

Dimensions of the type (measured in skin):—

Forearm 35 mm.

Head and body 57; tail 6; third finger, metacarpus 34, first phalanx 14, second phalanx 18; lower leg and hind foot (c. u.) 20; calcar 7.

Skull: greatest length (c.) 22; breadth of brain-case 9; front of canine to back of m^3 7.4, greatest breadth between outer corners of m^2 4.8; horizontal length of p^1 0.9, p_1 0.7, p_4 1.0.

Hab. Ega, Amazons.

Type. Adult female. B.M. no. 7. 1. 1. 671. Original number 171. Tomes's number 212 a. Collected by H. W. Bates. From the Tomes Collection.

The type specimen has only recently had its skull extracted, so that its peculiar characters have not hitherto been observed. It is a most interesting form, as tending to

connect the aberrant *Charonycteris* and *Hylonycteris* with the more normal-toothed members of the *Glossophaginæ*.

Phyllotis magister, sp. n.

General characters of *Ph. darwini*; size greater than in any other species of the genus.

Size conspicuously greater than in *Ph. darwini*. Fur of medium length and thickness. General colour above grizzled drabby grey, with slight buffy suffusion. Under surface dull creamy whitish, the bases of the hairs slaty. Ears large, as in the allied species; pale brown. Hands and feet large and heavy, their upper surfaces white. Tail long, well haired, blackish brown above, white below.

Skull as in *darwini*, but conspicuously larger throughout. Supraorbital edges not very sharply ridged.

Dimensions of the type, measured in the flesh:—

Head and body 152 mm.; tail 158; hind foot 32; ear 29.

Skull: greatest length 36·8; condylo-incisive length 34·2; zygomatic breadth 18·5; nasals 15·3; interorbital breadth 4·5; palatilar length 16·6; palatal foramina 9; upper molar series 6.

Hab. Arequipa, Peru. Alt. 2300 m.

Type. Adult male. B.M. no. 0.10.1.31. Original number 997. Collected 29th March, 1900, by Perry O. Simons. Presented by Oldfield Thomas.

This fine species is represented by a single specimen caught at the same place as a number of examples representing the northern form of *Ph. darwini*, a species in which the head and body length rarely exceeds 125 mm. and the skull length 33 mm. Its large molars and heavy rat-like feet also considerably surpass those of that animal.

Phyllotis darwini posticalis, subsp. n.

Proportions about as in true *darwini*. Fur very long, summer specimens with the wool-hair of the back very thick, about 15 mm. in length. General colour dark, little buffy, about as in typical Chilian *darwini* or in *lutescens*, therefore very different from the paler and more buffy forms inhabiting Southern Peru and the highlands of Bolivia. Tail rather longer than head and body, thickly hairy, the hairs practically hiding the scales, blackish above, sharply contrasted white below.

Skull as in true *darwini*, the teeth slightly larger.

Dimensions of two specimens, measured in flesh; the first the type:—

Head and body 117 and 125 mm.; tail 122 and 135; hind foot 25 and 30; ear 27 and 26.

Skull of type: greatest length 30·7; condylo-incisive length 28·1; interorbital breadth 4; palatilar length 13·6; palatal foramina 7·2; upper molar series 5·3.

Hab. Galéra, W. of Oroya, Department of Junin, Peru. Alt. 4800 m.

Type. Adult female. B.M. no. 0. 7. 7. 38. Original number 870. Collected 26th February, 1900, by P. O. Simons. Presented by Oldfield Thomas.

This is a dark well-haired mountain race of *Ph. darwini*, a widely spread species which ranges over the whole Andean area from Central Peru at least as far south as Santiago and Valparaiso in Chili, whence the Museum owes a good series from our generous correspondent Mr. J. A. Wolffsohn. By its dark colour it resembles the southern forms and differs from the other Peruvian and Bolivian representatives of *darwini*, which are pale and may mostly be referred to the following subspecies.

Phyllotis darwini limatus, subsp. n.

A pale race of *Ph. darwini*.

Size as in true *darwini*. Fur fine and soft. General colour pale greyish drab with a variable suffusion of buffy; the sides especially buffy. Face clearer grey. Under surface dull creamy white. Ears large, pale brown. Hands and feet white. Tail not very heavily haired, brown above and white below, some specimens with an all-white tail-tip.

Skull as in true *darwini*.

Dimensions of the type (measured in flesh):—

Head and body 115 mm.; tail 150 (generally 130–135); hind foot 25; ear 28.

Skull: greatest length 31·4; condylo-incisive length 29·2; zygomatic breadth 16; interorbital breadth 4·4; upper molar series 4·8.

Hab. Chosica, near Lima, Peru. Alt. 850 m.

Type. Old male. B.M. no. 0. 5. 7. 43. Original number 820. Collected 29th January, 1900, by Perry O. Simons. Presented by Oldfield Thomas.

This northern representative of *Ph. darwini* is paler and has a longer tail than the typical Chilian form. Specimens referable to it are in the Museum from various parts of the

highlands of Peru and Bolivia, including Caylloma, Arequipa, La Paz, &c. Further eastwards it probably grades into the form I named *wolffsohni*, which has, however, a rather differently shaped skull.

Phyllotis darwini tucumanus, subsp. n.

Proportions as in *darwini*. Colour dark. Nasals narrow. Size about as in true *darwini*. Fur long and fine. General colour dark, about as in *Ph. lutescens*. Under surface dull soiled greyish buffy, less white than in most of the races of *darwini*. Ears not very large. Hands and feet white. Tail rather longer than head and body, well haired, blackish above, white below.

Skull slightly smaller than that of true *darwini*, rather larger than that of *lutescens*. Nasals comparatively narrow, tapering backwards to a fine point. Interorbital region narrow, its edges less sharply angular than usual.

Dimensions of the type (measured in flesh):—

Head and body 107 mm.; tail ("two or three vertebrae lost") 110; hind foot 24; ear 22.

Skull: greatest length 31; condylo-incisive length 29·2; zygomatic breadth 15·8; nasals 13·5; interorbital breadth 4; palatilar length 14·5; palatal foramina 7·8; upper molar series 5·2.

Hab. Cumbre de Mala-mala, Sierra de Tucuman. Alt. 3300 m.

Type. Adult female. B.M. no. 4.10.2.6. Original number 3027. Collected 10th April, 1904, by E. Dinelli. Presented by Oldfield Thomas. Two specimens.

The skull of this animal is somewhat intermediate between that of *Ph. darwini* and *Ph. lutescens*, but I consider it provisionally as being more allied to the former. No species of this group have been previously recorded from anywhere near Tucuman.

Phyllotis darwini vaccarum, subsp. n.

A mountain race of *Ph. darwini*, with long hair and yellowish rump.

Size larger than in true *darwini* of the Central Chilean lowlands. Fur very long; hairs of back about 15 mm. in length. General colour paler than in true *darwini*, the upper surface suffused with buffy, especially on the rump, which is strong clear buffy. Face greyer. Under surface of the usual dull greyish white. Hands and feet white. Tail heavily haired, dark brown above, white below.

Skull longer than in any of the available specimens of true *darwinii*, its interorbital region narrow, sharply edged, concave mesially.

Dimensions of the type (measured in flesh) :—

Head and body 130 mm.; tail 140; hind foot 28; ear 27.

Skull: greatest length 34; condylo-incisive length 31.7; zygomatic breadth 17.5; nasals 13.7; interorbital breadth 4; palatilar length 16.2; palatal foramina 8.4; upper molar series 5.8.

Hab. Las Vacas, Argentine slope of Cordillera opposite Mendoza. Alt. 2500 m.

Type. Old male. B.M. no. 2.2.5.51. Collected 15th November, 1901, by P. O. Simons. Presented by Oldfield Thomas.

This *Phyllotis*, found at the well-known station of Las Vacas, on the Andean route between Mendoza and Santiago, differs from the true *Ph. darwini* of the Chilean plains by its rather larger size, longer skull, sharply edged interorbital region, long fur, and buffy-coloured rump. It was also obtained by Philip Gosse at Puente del Inca, about 9000', but there is no evidence as to whether these animals are able to surmount the Andean chain (altitude of pass 12,800') or whether the eastern and western races are now completely isolated.

None of Philippi's numerous species of "*Mus*" that are referable to *Phyllotis darwini* are inhabitants of the high Andes.

Phyllotis andium, sp. n.

Like *Ph. haggardi*, but tail much longer.

Size and general characters as in *haggardi*. Colour a little darker grey on the average, but the difference is neither great nor constant. Under surface dull greyish white slightly tinged with buffy. Ears not immensely large, greyish brown. Hands and feet white. Tail considerably and uniformly longer than in *haggardi*, brown above, white below.

Skull slightly larger and heavier than in *haggardi*, smaller than that of *darwinii*, with which it agrees in general proportions.

Dimensions of the type (measured in flesh) :—

Head and body 115 mm.; tail 119; hind foot 25; ear 21.

Skull: greatest length 28.7; condylo-incisive length 26.8;
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zygomatic breadth 15·2; nasals 11·3; interorbital breadth 4·3; palatilar length 13·2; palatal foramina 7; upper molar series 4·4.

Hab. Ecuador and Peru, along the Andean chain. Type from Cañar, Ecuador. Alt. 2600 m.

Type. Adult male. B.M. no. 99.9.9.68. Original number 267. Collected 18th April, 1899, by P. O. Simons. Presented by Oldfield Thomas.

The numerous examples of this *Phyllotis* obtained by Mr. Simons in the mountains of Ecuador and Peru have been hitherto looked upon as referable to *Ph. haggardi*, but additional specimens of the latter, received since its first description, show that it always has a comparatively short tail (85-90 mm.), while that of *Ph. andium* is rarely less than 115 mm. in length.

Euneomys mordax, sp. n.

A large heavily built greyish species, with normal-sized claws.

Size large, much larger than in the southern species *E. chinchilloides* and *petersoni*, more as in *E. fossor*. Fur long, thick, and woolly; hairs of back about 12-13 mm. in length. General colour dull greyish, too much faded in the type for exact description. Under surface lighter, not sharply defined, the hairs broadly washed with cream-buff. Ears of medium length, well-haired, the proectote blackish. Hands and feet dull greyish white above; fore claws of normal length, not elongated as in *E. fossor*. Tail thickly haired, greyish white with an indistinct darker line above.

Skull stout and heavily built, very like that of *E. fossor* and quite unlike that of the comparatively delicate *E. chinchilloides*. The supraorbital edges are, however, less sharply angular than in *E. fossor*, the muzzle and palatal foramina are shorter, and the teeth are smaller. Incisors very broad and heavy, strongly grooved.

Dimensions of the type (measured on the dry skin):—

Head and body (no doubt stretched) 147; tail (vertebræ dried in) 78; hind foot 28.

Skull (old, with worn teeth): condylo-incisive length 31; zygomatic breadth 20; interorbital breadth 4·7; breadth of brain-case 16; palatilar length 15·7; diastema 9; palatal foramina 7·6; upper molar series 6·1.

Hab. Fort San Rafael, Province of Mendoza.

Type. Old female. B.M. no. 55.12.24.199. Collected by Mr. T. Bridges.

In general proportions of body and skull this species resembles the Salta *E. fossor*, but is distinguished by its normal-sized claws, that animal having them elongated as in the subgenus *Chelemys*.

Reithrodon cuniculoides flammaram, subsp. n.

A large pale race of *R. cuniculoides*.

Size comparatively large, larger than in any other member of the genus. General colour pale, as in the typical race, much paler than in the inland forms *hatcheri* and *obscurus*. Posterior back suffused with buffy. Sides with the buffy wash at a maximum, the flanks and under surface bright "buff." Feet and tail heavily haired, the latter with a well-defined dark line along its upper surface.

Skull longer and more bowed than in the allied forms, so that the height is markedly greater.

Dimensions of the type (measured in the flesh):—

Head and body 169 mm.; tail 100; hind foot (s. u.) 34; ear 18.

Skull: greatest length 37.4; condylo-incisive length 34.8; zygomatic breadth 21; nasals 16.7; interorbital breadth 4.4; height from anterior base of m^3 12.3; palatilar length 19; palatal foramina 11; upper molar series 6.4.

Hab. Tierra del Fuego. Type from Spring-hill, in the north of the island.

Type. Adult male. B.M. no. 9.9.10.1. Original number 357. Collected 15th June, 1909, by Dr. W. H. France, and presented through Mr. J. A. Wolffsohn, of Valparaiso.

The Tierra del Fuego *Reithrodon* seems to be rather larger than the typical form of Eastern Patagonia and is paler coloured than the two inland races described by Dr. Allen, *R. c. obscurus* of Punta Arenas* and *R. hatcheri* of the Cordilleras farther north. How these two latter differ from each other is not clear, as each is simply diagnosed as being darker than *R. cuniculoides*. Dr. Allen has given the skull-length of a series of three *cuniculoides* as 33–35 mm., while the type skull of *hatcheri* is 35.7 in length. The Tierra del Fuego animal, with a skull-length of 37.4, is therefore markedly larger than either.

* Probably *pachycephalus*, Philippi, 1900, based on a young specimen: cf. Wolffsohn, Bol. Mus. Chile, ii. p. 101 (1910).